



Unidad de disco duro serie ATA

Guía del usuario



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Este manual es la traducción del original inglés *Serial ATA Hard Disk Drive User's Guide*.

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Seguridad

Before installing this product, read the Safety Information.

مُجَّب قرائة دلت السلامة

Antes de instalar este producto, leia as Informações de Segurança.

在安装本产品之前, 请仔细阅读 **Safety Information** (安全信息)。

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφαλείας (safety information).

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

製品の設置の前に、安全情報を読みください。

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este producto, lea la información de seguridad.

Перед установкой продукта прочтите инструкции по технике безопасности.

Antes de instalar este producto lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

安装本产品之前, 请先阅读「安全資訊」。

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Prefacio

Gracias por adquirir este producto de IBM. Tómese unos instantes para registrar el producto y proporcionarnos información que servirá de ayuda a IBM para prestarle un mejor servicio en el futuro. Su opinión es importante para nosotros porque nos ayuda cuando desarrollamos productos y servicios que son importantes para usted, así como a la hora de desarrollar mejores vías para comunicarnos con usted. Registre la opción en el sitio web de IBM siguiente:

<http://www.ibm.com/pc/register>.

IBM le enviará información y actualizaciones del producto registrado a menos que indique, en el cuestionario del sitio web, que no desea recibir más información.

Acerca de esta publicación

Esta publicación contiene instrucciones para instalar, configurar y utilizar la unidad de disco duro serie ATA de IBM®. El manual está dividido en las secciones siguientes:

Parte 1: Descripción del producto y del software, requisitos para la instalación, instrucciones de manipulación e información para la instalación y configuración en los idiomas siguientes:

- portugués de Brasil
- checoslovaco
- inglés
- francés
- alemán
- italiano
- japonés
- chino simplificado
- eslovaco
- español
- chino tradicional

Parte 2: Resolución de problemas, información de servicio y avisos.

Nota: Las ilustraciones de esta publicación pueden ser algo distintas de su hardware.

Capítulo 1. Descripción del producto

La unidad de disco duro serie ATA (SATA) de IBM sólo se puede instalar en sistemas con arquitectura serie ATA. La unidad de disco duro SATA de IBM se conecta a la interfaz SATA de una unidad simple mediante la configuración del cable, de forma que no hacen faltar valores de puente para los valores maestro o esclavo, como ATA paralelo.

La unidad de disco duro se puede configurar de una de estas formas:

- Unidad simple
 - Para instalarla como la única unidad de disco duro de un sistema
 - Para sustituir una unidad de disco duro
- Para que una de las diversas unidades funcione con otras unidades de disco duro instaladas

Además de esta guía del usuario, el paquete de esta opción contiene lo siguiente:

- Unidad de disco duro serie ATA
- Cuatro tornillos de montaje de la unidad
- CD de la *Guía del usuario de software*
- Manual de información de seguridad
- Cable SATA

Póngase en contacto con el establecimiento de compra si faltara algún elemento o si estuviera estropeado. No olvide conservar el comprobante de compra. Puede que el servicio de garantía se lo solicite para prestarle ayuda.

Descripción del software

El CD que se suministra junto con la opción contiene el programa de utilidad de instalación de la unidad Disk Manager.

Atención: Si va a instalar la unidad de disco nueva en un sistema que no dispone de unidad de CD-ROM, puede crear un disquete de instalación en otro sistema que tenga unidad de CD-ROM utilizando un disquete formateado vacío y el CD de la *Guía del usuario y de software*. Para crear el disquete de instalación que se utilizará en un sistema que no dispone de unidad de CD-ROM, consulte el apartado “Creación de un disquete con Disk Manager” en la página 3.

Disk Manager prueba, parte, formatea y prepara la unidad para la instalación de un sistema operativo. Disk Manager se puede iniciar a partir del CD de la Guía del usuario y de software, eliminando la necesidad de que exista un disquete del sistema. Debe conectar la unidad nueva al sistema antes de instalar Disk Manager.

Si utiliza Windows 2000 o Windows XP, puede utilizar el sistema operativo en lugar de Disk Manager para partir y formatear una unidad adicional.

El programa de utilidad Disk Manager contiene aplicaciones que:

- parten y formatean la unidad

- copian todos los archivos de una unidad a otra, simplificando la tarea de añadir una unidad de disco duro que va a sustituir a la unidad de arranque y que contiene el sistema operativo
- modifican la configuración de la aplicación para acceder a una letra de unidad de CD-ROM cambiada, si resulta necesario.

Planificación de la instalación

Este apartado contiene información detallada para ayudarle a planificar la instalación de la unidad de disco duro.

Requisitos de la instalación

Para instalar la unidad de disco duro debe disponer de lo siguiente:

- **Documentación**

La documentación que se suministra con el sistema y el sistema operativo

- **Puerto SATA**

El sistema debe disponer de un puerto SATA en la placa del sistema o un adaptador bus SATA. Si no está seguro del puerto SATA, consulte la documentación que se suministra con el sistema.

Planificación de la configuración

El programa de utilidad Disk Manager proporciona información sobre la colocación y configuración de las unidades de disco duro.

Las instrucciones que aparecen por pantalla proporcionan indicaciones personalizadas sobre cómo colocar y configurar las unidades.

Para ejecutar Disk Manager:

1. Inserte el CD de la *Guía del usuario y de software* en la unidad de CD-ROM.
2. Seleccione el idioma.
3. Pulse **DiskManager**.
4. Seleccione el idioma y pulse **Aceptar**.
5. En el menú principal de Disk Manager, seleccione **View/Print Online Manual** y pulse **Intro**.
6. Seleccione **Before Running Disk Manager**.
7. Seleccione **Adding a Hard Drive - Considerations**.
8. Seleccione **Notes on Adding a Drive** para ver información sobre la colocación y configuración de la unidad.

Planificación de la partición

Los releases más recientes de los sistemas operativos Microsoft disponen de una opción para una tabla de asignación de archivos de 32 bits denominada FAT32. FAT32 da soporte a particiones de hasta 2 TB¹ y tamaños de clúster de 4 KB² para particiones de hasta 8 GB³. Si dispone de una FAT32, podrá preparar la unidad sin preocuparse de los límites del tamaño de partición o de la eficacia de

1. Cuando nos referimos a la capacidad de la unidad de disco duro, TB (terabyte) significa 1.000.000.000.000 bytes; la capacidad total accesible por los usuarios puede variar en función del sistema operativo.

2. Cuando nos referimos a tamaños de clúster, KB significa 1.024 bytes.

3. Cuando nos referimos a la capacidad de la unidad de disco duro, GB (gigabyte) significa 1.000.000.000 bytes; la capacidad total accesible por los usuarios puede variar en función del sistema operativo.

almacenamiento. Para determinar si tiene o no instalada una FAT32, seleccione la unidad existente en **Mi PC** y seleccione **Propiedades**. Si la FAT32 está instalada, la pestaña **General** mostrará "FAT32" en la etiqueta de la unidad.

Si utiliza Windows XP, deberá utilizar el sistema de archivos NT (NTFS) para partir la unidad nueva. Para obtener más información acerca de cómo partir la unidad para Windows XP, consulte el apartado "Partición y formateo de la unidad" en la página 6.

Creación de un disquete con Disk Manager

Si el sistema no tiene unidad de CD-ROM y desea crear un disquete de arranque con Disk Manager, lleve a cabo lo siguiente:

1. Coloque el CD de instalación en un sistema que tenga CD-ROM y Microsoft Windows 95 o posterior.
2. Inicie el sistema e inserte el CD en la unidad de CD-ROM.
3. Seleccione el idioma.
4. Pulse **DiskManager**.
5. Seleccione el idioma y pulse **Aceptar**.
6. Pulse **Siguiente**.
7. Lea el acuerdo de licencia y pulse **Sí**.
8. En la ventana "Disk Manager installation is complete", asegúrese de marcar el recuadro **Check and Run Disk Manager now!**. Pulse **Finalizar**.
9. Desde el menú de Disk Manager, pulse **Maintenance**.
10. Seleccione **Create a Disk Manager Diskette** en la ventana "Maintenance options".
11. Seleccione el idioma. Pulse dos veces **Continuar**.
12. Inserte un disquete formateado vacío en la unidad de disquetes.
13. Lea el acuerdo de licencia y pulse **Sí**.
14. Pulse **Inicio**.
15. Cuando aparezca el mensaje "Disk Manager Diskette created successfully", pulse **Salir**. Extraiga el disquete de la unidad.
16. Pulse **Cancelar** y, a continuación, **Salir**.

Utilización de un disquete creado con Disk Manager

Para utilizar el disquete creado con Disk Manager con el fin de instalar su unidad de disco duro nueva, realice lo siguiente:

1. Inserte el disquete en la unidad de disquetes del sistema en el que desee instalar la unidad de disco duro nueva.
2. Apague el sistema.
3. Encienda el sistema. El sistema se iniciará desde el disquete.
4. Siga las instrucciones que aparecerán por pantalla.
5. Seleccione **View/Print Online Manual** para leer e imprimir la ayuda en línea.
6. La opción de menú **Easy Disk Installation** es adecuada para la mayoría de las instalaciones.

Instalación de la unidad

Si va a utilizar Windows 2000 o Windows XP en una unidad existente, deberá instalar la unidad nueva en el sistema antes de utilizar Windows para partir y formatear la unidad nueva.

Las instrucciones de este apartado son directrices generales que sirven para la mayoría de los sistemas. Si desea obtener información específica acerca de cómo instalar una unidad de disco duro en el sistema, consulte la documentación que se suministra junto con el sistema.

Paso 1. Cómo abrir el sistema

Antes de abrir el sistema, lleve a cabo estos pasos:

1. Apague el sistema.
2. Desenchufe los cables de las tomas de alimentación del sistema y todos los dispositivos conectados.

Ahora podrá abrir el sistema con toda seguridad. Si desea obtener información específica acerca de cómo abrir el sistema, consulte la documentación que se suministra junto con el sistema.

Paso 2. Cómo desempaquetar la unidad

Emplee el procedimiento siguiente para desempaquetar y manipular la unidad. Para evitar daños y descargas de electricidad estática, procure manipular la unidad lo mínimo posible.

1. No abra la funda antiestática hasta el momento de instalar la unidad. La electricidad estática puede dañar la unidad y otros componentes del sistema.
2. Ponga en contacto la superficie conductora interna de la funda antiestática que contiene la unidad y su mano con una superficie metálica sin pintar del sistema durante dos segundos. Esta acción elimina la electricidad estática de la funda y de su cuerpo.
3. Antes de manipular la unidad, elimine la electricidad estática que pudiera tener tocando una superficie sin pintar del sistema. Vuelva a repetir la operación cada vez que se marche y vuelva al área de trabajo.
4. Tome siempre la unidad por los extremos. No toque ningún sistema de circuitos impreso, ningún componente ni patillas conectoras que puedan quedar al descubierto.
5. Al instalar la unidad, evite toda manipulación innecesaria. Una manipulación inadecuada podría dañar los cabezales, discos giratorios y cojinetes de rodamiento del interior del alojamiento de la unidad.
6. Si debe colocar la unidad hacia abajo, coloque la funda antiestática sobre una superficie lisa y blanda y deje la unidad sobre la funda con el lado de los componentes hacia abajo.

Nota: Si desea instalar la unidad en una bahía de 5,25 pulgadas, tendrá que adquirir un kit de conversión.

Paso 3. Cómo montar la unidad en la bahía

Puede montar la unidad horizontal o verticalmente. Para montar la unidad en la bahía:

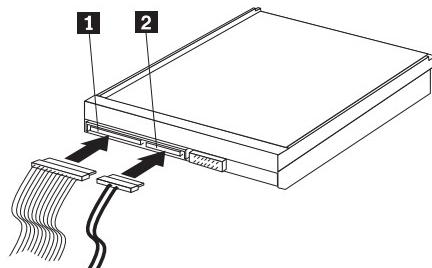
1. Deslice la unidad hacia la bahía.

2. Si va a añadir la unidad nueva en un sistema que ya tenga una unidad, asegúrese de que la unidad nueva esté colocada de forma que se encuentre en una posición adyacente y orientada en la misma dirección que la unidad de disco duro existente de forma que no tenga que enroscar el cable de la interfaz para conectar las unidades.
3. Alinee los orificios para tornillos de la bahía de la unidad con los orificios de rosca del alojamiento de la unidad o de las piezas de sujeción de expansión.
4. Atornille los tornillos con la mano para fijar un poco la unidad en la bahía. Para determinadas instalaciones, puede que tenga que utilizar los orificios de tornillo de la parte inferior (en la parte de la placa del circuito) de la unidad.
5. Compruebe la alineación de la unidad y apriete bien los tornillos. No los apriete en exceso.

Paso 4. Cómo conectar los cables a la unidad

Emplee el procedimiento siguiente para conectar los cables.

1. Conecte el cable que se proporciona junto con su opción al puerto de 7 patillas (2) de la unidad.
2. Conecte el otro extremo al puerto serie ATA. El puerto serie ATA puede estar en la placa del sistema o en un adaptador instalado en una ranura de expansión.



1 conector de alimentación SATA de 15 patillas

2 cable de 7 patillas

3. Busque un conector de alimentación de 15 patillas que no se utilice en la fuente de alimentación del sistema y conéctelo al conector de alimentación CC de la unidad (1). El conector de alimentación sólo se conecta de una forma. No lo fuerce. Si el conector no se conecta ejerciendo una presión razonable, vuelva a comprobar la orientación del conector del cable con el conector de la unidad e inténtelo de nuevo.

Nota: Conecte sólo un cable de alimentación.

Paso 5. Cómo llevar a cabo la instalación de la unidad

Para llevar a cabo la instalación de la unidad:

1. Verifique que la unidad de disco duro esté montada correctamente y que los cables estén bien conectados.
2. Verifique que los cables no interfieran con la cubierta del sistema y que no bloqueen las paletas del ventilador ni las salidas de aire.
3. Vuelva a colocar la cubierta del sistema.
4. Conecte de nuevo todos los dispositivos. Asegúrese de que los cables del teclado, ratón y monitor estén bien conectados.

5. Vuelva a conectar todos los cables de alimentación CA.

Preparación de la unidad para su uso

Cuando reinicie el sistema, aparecerá la pantalla de información de configuración porque habrá cambiado el hardware del sistema. Algunos sistemas necesitan que el usuario realice ciertas elecciones de configuración la primera vez que reinicia el sistema tras instalar un dispositivo nuevo. Si no aparece la pantalla, consulte la documentación del sistema donde encontrará información acerca de cómo acceder a la misma. Para la mayoría de los sistemas IBM, puede ver la información de configuración durante el arranque del sistema si pulsa F1 cuando aparece el gráfico de configuración en la esquina superior derecha de la pantalla.

Compruebe la información de configuración en uno de estos sentidos:

- Si el programa de configuración informa del tamaño de la unidad nueva y es lo que esperaba, guarde los cambios, cierre el programa de configuración y prosiga con el apartado "Partición y formateo de la unidad" en la página 6.
- Si el sistema parece dejar de responder o si no se reinicia satisfactoriamente, vaya al Capítulo 2, "Resolución de problemas", en la página 9.

Partición y formateo de la unidad

Si va a añadir la unidad a un sistema que tiene instalado Windows 2000 o Windows XP en una unidad existente, siga las instrucciones que figuran a continuación para partir y formatear la unidad SATA nueva.

1. Encienda el sistema.
2. Pulse **Inicio -> Programas -> Panel de control**.
3. Efectúe una doble pulsación sobre **Herramientas de administración**.
4. Efectúe una doble pulsación sobre **Administración del sistema**.
5. Efectúe una doble pulsación sobre **Almacenamiento**.
6. Efectúe una doble pulsación sobre **Administración de discos**.
7. Desde la barra de menús, pulse **Acción -> Todas las tareas -> Crear volumen**. Se abrirá el **Asistente para crear volumen**.
8. Siga las instrucciones que aparecen por pantalla para partir y formatear la unidad.

Nota: Si va a instalar la unidad en un sistema que no tenga ninguna unidad de disco duro, siga las instrucciones que figuran a continuación para partir y formatear la unidad de disco duro nueva para el sistema operativo Windows 2000 o Windows XP que utilicen NTFS:

1. Inserte el primer disquete de instalación de Windows 2000 o Windows XP (*Disco de configuración número 1*) en la unidad de disquetes o inserte el CD de instalación de Windows 2000 o Windows XP en la unidad de CD-ROM.
2. Reinicie el sistema.
3. Utilice las instrucciones de la guía del usuario de Windows 2000 o Windows XP para partir y formatear la unidad.

Manipulación de la unidad de disco duro

Disk Manager, que se incluye en el *CD de la Guía del usuario y de software de la serie ATA de IBM*, proporciona herramientas para la gestión de discos duros que le permiten:

- partir y formatear la unidad de disco duro
- actualizar las letras de unidad del CD-ROM, si fuera necesario
- copiar archivos de la unidad de disco duro antigua en la unidad nueva sin cambiar los nombres de archivo ni de directorio
- ejecutar programas de diagnóstico para probar y gestionar la unidad

Si desea obtener más información acerca de estas herramientas, pulse el botón de ayuda que encontrará en la sección Maintenance Options del software Disk Manager.

Capítulo 2. Resolución de problemas

Si instala su unidad de disco duro nueva y el programa de arranque parece dejar de responder o no detecta la unidad nueva correctamente, puede que se deba a un problema de hardware. Consulte las secciones siguientes para obtener más información acerca de esos problemas.

Corrección de problemas de hardware

Para identificar y corregir un problema de hardware, intente lo siguiente:

1. Utilice los procedimientos siguientes para comprobar las conexiones de cables.
 - a. Apague el sistema.
 - b. Desenchufe los cables de las tomas de alimentación del sistema y todos los dispositivos conectados.
 - c. Extraiga la cubierta del sistema y desconecte de la unidad el cable de la interfaz.
 - d. Compruebe las conexiones a la interfaz de la unidad de disco duro y al conector de alimentación. Consulte el "Paso 4. Cómo conectar los cables a la unidad" en la página 5.
 - e. Verifique que el cable de alimentación esté conectado correctamente a la unidad.
 - f. Vuelva a colocar la cubierta del sistema.
 - g. Conecte de nuevo el cable de alimentación al sistema.
 - h. Reinicie el sistema.

Si no se vuelve a producir el problema, vaya al apartado "Preparación de la unidad para su uso" en la página 6. Si el problema persiste, continúe con el paso 2.

2. Compruebe si se produce un conflicto con otro dispositivo y reinicie el sistema teniendo sólo conectada la unidad de disco duro nueva.
 - a. Apague el sistema.
 - b. Desenchufe los cables de las tomas de alimentación del sistema y todos los dispositivos conectados.
 - c. Extraiga la cubierta del sistema y desconecte todos los dispositivos de los puertos IDE y SATA.
 - d. Conecte la unidad de disco duro nueva al puerto serie ATA.
 - e. Vuelva a colocar la cubierta del sistema.
 - f. Compruebe de nuevo todos los cables externos.
 - g. Reinicie el sistema y compruebe el tamaño de la unidad que ha indicado el programa de configuración. Si la unidad de disco duro ya se detecta correctamente, significa que tiene un problema de compatibilidad con uno de los dispositivos desconectados.
 - h. Para identificar un problema de incompatibilidad:
 - Consulte las guías del usuario de los dispositivos conectados.
 - Consulte la publicación *Disk Manager Online Manual* (manual en línea de Disk Manager) si desea obtener información adicional. Para abrir el manual en línea de Disk Manager, siga estos pasos:

- 1) Inserte el CD de la *Guía del usuario y de software* en la unidad de CD-ROM.
- 2) Seleccione el idioma.
- 3) En la parte de la izquierda de la ventana, pulse **DiskManager**.
- 4) Seleccione el idioma y pulse **Aceptar**.
- 5) En el menú principal de Disk Manager, seleccione **View/Print Online Manual** y pulse **Intro**.
 - Si el dispositivo en conflicto es una unidad de disco duro que no pertenece a IBM, compruebe el sitio web del fabricante de la unidad o llame al servicio de ayuda del fabricante.
 - Cuando haya corregido el problema de compatibilidad, vuelva al apartado "Preparación de la unidad para su uso" en la página 6 para finalizar el proceso de preparación de la unidad de disco.

Apéndice A. Warranty information

This section contains the warranty period for your product, information about obtaining warranty service and support, and the IBM Statement of Limited Warranty.

Warranty period

Contact your place of purchase for warranty service information.

Machine - Serial ATA Hard Disk Drive

Warranty period	Service delivery method
3 years	CCE (customer carry-in or mail-in)

Service and support

The following information describes the technical support that is available for your product, during the warranty period or throughout the life of the product. Refer to your IBM Statement of Limited Warranty for a full explanation of IBM warranty terms.

Warranty information on the World Wide Web

The IBM Machine Warranties Web site at www.ibm.com/servers/support/machine_warranties/ contains a worldwide overview of the IBM Limited Warranty for IBM Machines, a glossary of terms used in the Statement of Limited Warranty, Frequently Asked Questions (FAQ), and links to Product Support Web pages. The IBM Statement of Limited Warranty is available from this Web site in 29 languages in Portable Document Format (PDF).

Online technical support

Online technical support is available during the life of your product through the Personal Computing Support Web site at www.ibm.com/pc/support/.

During the warranty period, assistance for replacement or exchange of defective components is available. In addition, if your IBM option is installed in an IBM computer, you might be entitled to service at your location. Your technical support representative can help you determine the best alternative.

Telephone technical support

Installation and configuration support through the IBM HelpCenter® will be withdrawn or made available for a fee, at IBM's discretion, 90 days after the option has been withdrawn from marketing. Additional support offerings, including step-by-step installation assistance, are available for a nominal fee.

To assist the technical support representative, have available as much of the following information as possible:

- Option name
- Option number

- Proof of purchase
- Computer manufacturer, model, serial number (if IBM), and manual
- Exact wording of the error message (if any)
- Description of the problem
- Hardware and software configuration information for your system

If possible, be at your computer. Your technical support representative might want to walk you through the problem during the call.

For the support telephone number and support hours by country, refer to the following table. If the number for your country or region is not listed, contact your IBM reseller or IBM marketing representative. Response time may vary depending on the number and nature of the calls received.

Support 24 hours a day, 7 days a week	
Canada (Toronto only)	416-383-3344
Canada (all other)	1-800-565-3344
U.S.A. and Puerto Rico	1-800-772-2227
All other countries and regions	Go to www.ibm.com/pc/support/ , and click Support Phone List .

Trademarks

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

- IBM
- IBM Logo
- HelpCenter

Other company, product, or service names may be trademarks or service marks of others.

IBM Statement of Limited Warranty Z125-4753-06 8/2000

Part 1 - General Terms

This Statement of Limited Warranty includes Part 1 - General Terms and Part 2 - Country-unique Terms. The terms of Part 2 replace or modify those of Part 1. The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you purchase for your use, and not for resale, from IBM or your reseller. The term "Machine" means an IBM machine, its features, conversions, upgrades, elements, or accessories, or any combination of them. The term "Machine" does not include any software programs, whether pre-loaded with the Machine, installed subsequently or otherwise. Unless IBM specifies otherwise, the following warranties apply only in the country where you acquire the Machine. Nothing in this Statement of Limited Warranty affects any statutory rights of consumers that cannot be waived or limited by contract. If you have any questions, contact IBM or your reseller.

The IBM Warranty for Machines: IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications ("Specifications"). The warranty period for a Machine is a specified, fixed period commencing on its Date of Installation. The date on your sales receipt is the Date of Installation unless IBM or your reseller informs you otherwise.

If a Machine does not function as warranted during the warranty period, and IBM or your reseller are unable to either 1) make it do so or 2) replace it with one that is at least functionally equivalent, you may return it to your place of purchase and your money will be refunded.

Extent of Warranty: The warranty does not cover the repair or exchange of a Machine resulting from misuse, accident, modification, unsuitable physical or operating environment, improper maintenance by you, or failure caused by a product for which IBM is not responsible. The warranty is voided by removal or alteration of Machine or parts identification labels.

THESE WARRANTIES ARE YOUR EXCLUSIVE WARRANTIES AND REPLACE ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF EXPRESS OR IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU. IN THAT EVENT, SUCH WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD.

Items Not Covered by Warranty: IBM does not warrant uninterrupted or error-free operation of a Machine. Any technical or other support provided for a Machine under warranty, such as assistance via telephone with "how-to" questions and those regarding Machine set-up and installation, will be provided **WITHOUT WARRANTIES OF ANY KIND**.

Warranty Service: To obtain warranty service for a Machine, contact IBM or your reseller. If you do not register your Machine with IBM, you may be required to present proof of purchase.

During the warranty period, IBM or your reseller, if approved by IBM to provide warranty service, provides without charge certain types of repair and exchange service to keep Machines in, or restore them to, conformance with their Specifications. IBM or your reseller will inform you of the available types of service for a Machine based on its country of installation. At its discretion, IBM or your reseller will 1) either repair or exchange the failing Machine and 2) provide the service either at your location or a service center. IBM or your reseller will also manage and install selected engineering changes that apply to the Machine.

Some parts of IBM Machines are designated as Customer Replaceable Units (called "CRUs"), e.g., keyboards, memory, or hard disk drives. IBM ships CRUs to you for replacement by you. You must return all defective CRUs to IBM within 30 days of your receipt of the replacement CRU. You are responsible for downloading designated Machine Code and Licensed Internal Code updates from an IBM Internet Web site or from other electronic media, and following the instructions that IBM provides.

When warranty service involves the exchange of a Machine or part, the item IBM or your reseller replaces becomes its property and the replacement becomes yours. You represent that all removed items are genuine and unaltered. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced. The replacement assumes the warranty service status of the replaced item. Many features, conversions, or upgrades involve the removal of parts and their return to IBM. A part that replaces a removed part will assume the warranty service status of the removed part.

Before IBM or your reseller exchanges a Machine or part, you agree to remove all features, parts, options, alterations, and attachments not under warranty service.

You also agree to

1. ensure that the Machine is free of any legal obligations or restrictions that prevent its exchange;
2. obtain authorization from the owner to have IBM or your reseller service a Machine that you do not own; and
3. where applicable, before service is provided:
 - a. follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provides;
 - b. secure all programs, data, and funds contained in a Machine;
 - c. provide IBM or your reseller with sufficient, free, and safe access to your facilities to permit them to fulfill their obligations; and
 - d. inform IBM or your reseller of changes in a Machine's location.

IBM is responsible for loss of, or damage to, your Machine while it is 1) in IBM's possession or 2) in transit in those cases where IBM is responsible for the transportation charges.

Neither IBM nor your reseller is responsible for any of your confidential, proprietary or personal information contained in a Machine which you return to IBM or your reseller for any reason. You should remove all such information from the Machine prior to its return.

Limitation of Liability: Circumstances may arise where, because of a default on IBM's part or other liability, you are entitled to recover damages from IBM. In each such instance, regardless of the basis on which you are entitled to claim damages from IBM (including fundamental breach, negligence, misrepresentation, or other

contract or tort claim), except for any liability that cannot be waived or limited by applicable laws, IBM is liable for no more than

1. damages for bodily injury (including death) and damage to real property and tangible personal property; and
2. the amount of any other actual direct damages, up to the charges (if recurring, 12 months' charges apply) for the Machine that is subject of the claim. For purposes of this item, the term "Machine" includes Machine Code and Licensed Internal Code.

This limit also applies to IBM's suppliers and your reseller. It is the maximum for which IBM, its suppliers, and your reseller are collectively responsible.

UNDER NO CIRCUMSTANCES IS IBM LIABLE FOR ANY OF THE FOLLOWING: 1) THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE); 2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES, LOST PROFITS OR LOST SAVINGS, EVEN IF IBM, ITS SUPPLIERS OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Governing Law

Governing Law: Both you and IBM consent to the application of the laws of the country in which you acquired the Machine to govern, interpret, and enforce all of your and IBM's rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Agreement, without regard to conflict of law principles.

Part 2 - Country-unique Terms

AMERICAS

BRAZIL

Governing Law: *The following is added after the first sentence:*
Any litigation arising from this Agreement will be settled exclusively by the court of Rio de Janeiro.

NORTH AMERICA

Warranty Service: *The following is added to this Section:*
To obtain warranty service from IBM in Canada or the United States, call 1-800-IBM-SERV (426-7378).

CANADA

Governing Law: *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*
laws in the Province of Ontario.

UNITED STATES

Governing Law: *The following replaces “laws of the country in which you acquired the Machine” in the first sentence:*
laws of the State of New York.

ASIA PACIFIC

AUSTRALIA

The IBM Warranty for Machines: *The following paragraph is added to this Section:*
The warranties specified in this Section are in addition to any rights you may have under the Trade Practices Act 1974 or other similar legislation and are only limited to the extent permitted by the applicable legislation.

Limitation of Liability: *The following is added to this Section:*
Where IBM is in breach of a condition or warranty implied by the Trade Practices Act 1974 or other similar legislation, IBM’s liability is limited to the repair or replacement of the goods or the supply of equivalent goods. Where that condition or warranty relates to right to sell, quiet possession or clear title, or the goods are of a kind ordinarily acquired for personal, domestic or household use or consumption, then none of the limitations in this paragraph apply.

Governing Law: *The following replaces “laws of the country in which you acquired the Machine” in the first sentence:*
laws of the State or Territory.

CAMBODIA, LAOS, AND VIETNAM

Governing Law: *The following replaces “laws of the country in which you acquired the Machine” in the first sentence:*
laws of the State of New York.

The following is added to this Section:
Disputes and differences arising out of or in connection with this Agreement shall be finally settled by arbitration which shall be held in Singapore in accordance with the rules of the International Chamber of Commerce (ICC). The arbitrator or arbitrators designated in conformity with those rules shall have the power to rule on their own competence and on the validity of the Agreement to submit to arbitration. The arbitration award shall be final and binding for the parties without appeal and the arbitral award shall be in writing and set forth the findings of fact and the conclusions of law.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. The number of arbitrators shall be three, with each side to the dispute being entitled to appoint one arbitrator.

The two arbitrators appointed by the parties shall appoint a third arbitrator before proceeding upon the reference. The third arbitrator shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the ICC. Other vacancies shall be filled by the respective nominating party.
Proceedings shall continue from the stage they were at when the vacancy occurred.

If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator shall be the sole arbitrator, provided that the arbitrator was validly and properly appointed.

The English language version of this Agreement prevails over any other language version.

HONG KONG AND MACAU

Governing Law: *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*

laws of Hong Kong Special Administrative Region.

INDIA

Limitation of Liability: *The following replaces items 1 and 2 of this Section:*

1. liability for bodily injury (including death) or damage to real property and tangible personal property will be limited to that caused by IBM's negligence;
2. as to any other actual damage arising in any situation involving nonperformance by IBM pursuant to, or in any way related to the subject of this Statement of Limited Warranty, IBM's liability will be limited to the charge paid by you for the individual Machine that is the subject of the claim.

JAPAN

Governing Law: *The following sentence is added to this Section:*

Any doubts concerning this Agreement will be initially resolved between us in good faith and in accordance with the principle of mutual trust.

NEW ZEALAND

The IBM Warranty for Machines: *The following paragraph is added to this Section:*
The warranties specified in this Section are in addition to any rights you may have under the Consumer Guarantees Act 1993 or other legislation which cannot be excluded or limited. The Consumer Guarantees Act 1993 will not apply in respect of any goods which IBM provides, if you require the goods for the purposes of a business as defined in that Act.

Limitation of Liability: *The following is added to this Section:*

Where Machines are not acquired for the purposes of a business as defined in the Consumer Guarantees Act 1993, the limitations in this Section are subject to the limitations in that Act.

PEOPLE'S REPUBLIC OF CHINA (PRC)

Governing Law: *The following replaces this Section:*

Both you and IBM consent to the application of the laws of the State of New York (except when local law requires otherwise) to govern, interpret, and enforce all your and IBM's rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Agreement, without regard to conflict of law principles.

Any disputes arising from or in connection with this Agreement will first be resolved by friendly negotiations, failing which either of us has the right to submit the dispute to the China International Economic and Trade Arbitration Commission in Beijing, the PRC, for arbitration in accordance with its arbitration rules in force at the time. The arbitration tribunal will consist of three arbitrators. The language to be used therein will be English and Chinese. An arbitral award will be final and binding on all the parties, and will be enforceable under the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (1958).

The arbitration fee will be borne by the losing party unless otherwise determined by the arbitral award.

During the course of arbitration, this Agreement will continue to be performed except for the part which the parties are disputing and which is undergoing arbitration.

EUROPE, MIDDLE EAST, AFRICA (EMEA)

THE FOLLOWING TERMS APPLY TO ALL EMEA COUNTRIES:

The terms of this Statement of Limited Warranty apply to Machines purchased from IBM or an IBM reseller.

Warranty Service: If you purchase an IBM Machine in Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland or United Kingdom, you may obtain warranty service for that Machine in any of those countries from either (1) an IBM reseller approved to perform warranty service or (2) from IBM. If you purchase an IBM Personal Computer Machine in Albania, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Kazakhstan, Kirghizia, Federal Republic of Yugoslavia, Former Yugoslav Republic of Macedonia (FYROM), Moldova, Poland, Romania, Russia, Slovak Republic, Slovenia, or Ukraine, you may obtain warranty service for that Machine in any of those countries from either (1) an IBM reseller approved to perform warranty service or (2) from IBM.

If you purchase an IBM Machine in a Middle Eastern or African country, you may obtain warranty service for that Machine from the IBM entity within the country of purchase, if that IBM entity provides warranty service in that country, or from an IBM reseller, approved by IBM to perform warranty service on that Machine in that country. Warranty service in Africa is available within 50 kilometers of an IBM authorized service provider. You are responsible for transportation costs for Machines located outside 50 kilometers of an IBM authorized service provider.

Governing Law: The applicable laws that govern, interpret and enforce rights, duties, and obligations of each of us arising from, or relating in any manner to, the subject matter of this Statement, without regard to conflict of laws principles, as well as Country-unique terms and competent court for this Statement are those of the country in which the warranty service is being provided, except that in 1) Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Hungary, Former Yugoslav Republic of Macedonia, Romania, Slovakia, Slovenia, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan, the laws of Austria apply; 2) Estonia, Latvia, and Lithuania, the laws of Finland apply; 3) Algeria, Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Djibouti, Democratic Republic of Congo, Equatorial Guinea, France, Gabon, Gambia, Guinea, Guinea-Bissau, Ivory Coast, Lebanon, Mali, Mauritania, Morocco, Niger, Senegal, Togo, and Tunisia, this Agreement will be construed and the legal relations between the parties will be determined in accordance with the French laws and all disputes arising out of this Agreement or related to its violation or execution, including summary proceedings, will be settled exclusively by the Commercial Court of Paris; 4) Angola, Bahrain, Botswana, Burundi, Egypt, Eritrea, Ethiopia, Ghana, Jordan, Kenya, Kuwait, Liberia, Malawi, Malta, Mozambique, Nigeria, Oman, Pakistan, Qatar, Rwanda, Sao Tome, Saudi Arabia, Sierra Leone, Somalia, Tanzania, Uganda, United Arab Emirates, United Kingdom, West Bank/Gaza, Yemen, Zambia, and Zimbabwe, this Agreement will be governed by English Law and

disputes relating to it will be submitted to the exclusive jurisdiction of the English courts; and 5) in Greece, Israel, Italy, Portugal, and Spain any legal claim arising out of this Statement will be brought before, and finally settled by, the competent court of Athens, Tel Aviv, Milan, Lisbon, and Madrid, respectively.

THE FOLLOWING TERMS APPLY TO THE COUNTRY SPECIFIED:

AUSTRIA AND GERMANY

The IBM Warranty for Machines: *The following replaces the first sentence of the first paragraph of this Section:*

The warranty for an IBM Machine covers the functionality of the Machine for its normal use and the Machine's conformity to its Specifications.

The following paragraphs are added to this Section:

The minimum warranty period for Machines is six months. In case IBM or your reseller is unable to repair an IBM Machine, you can alternatively ask for a partial refund as far as justified by the reduced value of the unrepaired Machine or ask for a cancellation of the respective agreement for such Machine and get your money refunded.

Extent of Warranty: *The second paragraph does not apply.*

Warranty Service: *The following is added to this Section:*

During the warranty period, transportation for delivery of the failing Machine to IBM will be at IBM's expense.

Limitation of Liability: *The following paragraph is added to this Section:*

The limitations and exclusions specified in the Statement of Limited Warranty will not apply to damages caused by IBM with fraud or gross negligence and for express warranty.

The following sentence is added to the end of item 2:

IBM's liability under this item is limited to the violation of essential contractual terms in cases of ordinary negligence.

EGYPT

Limitation of Liability: *The following replaces item 2 in this Section:*

as to any other actual direct damages, IBM's liability will be limited to the total amount you paid for the Machine that is the subject of the claim. For purposes of this item, the term "Machine" includes Machine Code and Licensed Internal Code.

Applicability of suppliers and resellers (unchanged).

FRANCE

Limitation of Liability: *The following replaces the second sentence of the first paragraph of this Section:*

In such instances, regardless of the basis on which you are entitled to claim damages from IBM, IBM is liable for no more than: *(items 1 and 2 unchanged).*

IRELAND

Extent of Warranty: *The following is added to this Section:*

Except as expressly provided in these terms and conditions, all statutory conditions, including all warranties implied, but without prejudice to the generality of the foregoing all warranties implied by the Sale of Goods Act 1893 or the Sale of Goods and Supply of Services Act 1980 are hereby excluded.

Limitation of Liability: *The following replaces items one and two of the first paragraph of this Section:*

1. death or personal injury or physical damage to your real property solely caused by IBM's negligence; and
2. the amount of any other actual direct damages, up to 125 percent of the charges (if recurring, the 12 months' charges apply) for the Machine that is the subject of the claim or which otherwise gives rise to the claim.

Applicability of suppliers and resellers (unchanged).

The following paragraph is added at the end of this Section:

IBM's entire liability and your sole remedy, whether in contract or in tort, in respect of any default shall be limited to damages.

ITALY

Limitation of Liability: *The following replaces the second sentence in the first paragraph:* In each such instance unless otherwise provided by mandatory law, IBM is liable for no more than:

1. *(unchanged)*
2. as to any other actual damage arising in all situations involving nonperformance by IBM pursuant to, or in any way related to the subject matter of this Statement of Warranty, IBM's liability, will be limited to the total amount you paid for the Machine that is the subject of the claim.

Applicability of suppliers and resellers (unchanged).

The following replaces the third paragraph of this Section:

Unless otherwise provided by mandatory law, IBM and your reseller are not liable for any of the following: *(items 1 and 2 unchanged)* 3) indirect damages, even if IBM or your reseller is informed of their possibility.

SOUTH AFRICA, NAMIBIA, BOTSWANA, LESOTHO AND SWAZILAND

Limitation of Liability: *The following is added to this Section:*

IBM's entire liability to you for actual damages arising in all situations involving nonperformance by IBM in respect of the subject matter of this Statement of Warranty will be limited to the charge paid by you for the individual Machine that is the subject of your claim from IBM.

UNITED KINGDOM

Limitation of Liability: *The following replaces items 1 and 2 of the first paragraph of this Section:*

1. death or personal injury or physical damage to your real property solely caused by IBM's negligence;
2. the amount of any other actual direct damages or loss, up to 125 percent of the charges (if recurring, the 12 months' charges apply) for the Machine that is the subject of the claim or which otherwise gives rise to the claim;

The following item is added to this paragraph:

3. breach of IBM's obligations implied by Section 12 of the Sale of Goods Act 1979 or Section 2 of the Supply of Goods and Services Act 1982.

Applicability of suppliers and resellers (unchanged).

The following is added to the end of this Section:

IBM's entire liability and your sole remedy, whether in contract or in tort, in respect of any default shall be limited to damages.

Apéndice B. Notices

IBM may not offer the products, services, or features discussed in this document in all countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

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Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may

vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Federal Communications Commission (FCC) statement

Serial ATA Hard Disk Drive

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

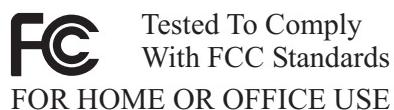
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an IBM authorized dealer or service representative for help.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Proper cables and connectors are available from IBM authorized dealers. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible party:

International Business Machines Corporation
New Orchard Road
Armonk, NY 10504
Telephone: 1-919-543-2193



Industry Canada Class B emission compliance statement

This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Deutsche EMV-Direktive (electromagnetische Verträglichkeit)

Zulassungbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG) vom 30. August 1995 (bzw. der EMC EG Richtlinie 89/336):

Dieses Gerät ist berechtigt in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen. Verantwortlich für die Konformitätserklärung nach Paragraph 5 des EMVG ist die:

IBM Deutschland Informationssysteme GmbH, 70548 Stuttgart.

Informationen in Hinsicht EMVG Paragraph 3 Abs. (2) 2:

Das Gerät erfüllt die Schutzanforderungen nach EN 55024:1998 und EN 55022:1998 Klasse B.

EN 55022 Hinweis:

“Wird dieses Gerät in einer industriellen Umgebung betrieben (wie in EN 55022:B festgetlegt), dann kann es dabei eventuell gestört werden. In solch einem FA11 ist der Abstand bzw. die Abschirmung zu der industriellen Störquelle zu vergrößern.”

Anmerkung:

Um die Einhaltung des EMVG sicherzustellen sind die Geräte, wie in den IBM Handbüchern angegeben, zu installieren und zu betreiben.

European Union - emission directive

This product is in conformity with the protection requirements of EU Council Directive 89/336/ECC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

IBM can not accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

Union Européenne - Directive Conformité électromagnétique

Ce produit est conforme aux exigences de protection de la Directive 89/336/EEC du Conseil de l'UE sur le rapprochement des lois des États membres en matière de compatibilité électromagnétique.

IBM ne peut accepter aucune responsabilité pour le manquement aux exigences de protection résultant d'une modification non recommandée du produit, y compris l'installation de cartes autres que les cartes IBM.

Ce produit a été testé et il satisfait les conditions de l'équipement informatique de Classe B en vertu de Standard européen EN 55022. Les conditions pour l'équipement de Classe B ont été définies en fonction d'un contexte résidentiel ordinaire afin de fournir une protection raisonnable contre l'interférence d'appareils de communication autorisés.

Unione Europea - Directiva EMC (Conformidad electromagnética)

Este producto satisface los requisitos de protección del Consejo de la UE, Directiva 89/336/CEE en lo que a la legislatura de los Estados Miembros sobre compatibilidad electromagnética se refiere.

IBM no puede aceptar responsabilidad alguna si este producto deja de satisfacer dichos requisitos de protección como resultado de una modificación no recomendada del producto, incluyendo el ajuste de tarjetas de opción que no sean IBM.

Este producto ha sido probado y satisface los límites para Equipos Informáticos Clase B de conformidad con el Estándar Europeo EN 55022. Los límites para los equipos de Clase B se han establecido para entornos residenciales típicos a fin de proporcionar una protección razonable contra las interferencias con dispositivos de comunicación licenciados.

Union Europea - Normativa EMC

Questo prodotto è conforme alle normative di protezione ai sensi della Direttiva del Consiglio dell'Unione Europea 89/336/CEE sull'armonizzazione legislativa degli stati membri in materia di compatibilità elettromagnetica.

IBM non accetta responsabilità alcuna per la mancata conformità alle normative di protezione dovuta a modifiche non consigliate al prodotto, compresa l'installazione di schede e componenti di marca diversa da IBM.

Le prove effettuate sul presente prodotto hanno accertato che esso rientra nei limiti stabiliti per le apparecchiature di informatica Classe B ai sensi del Norma Europea EN 55022. I limiti delle apparecchiature della Classe B sono stati stabiliti al fine di fornire ragionevole protezione da interferenze mediante dispositivi di comunicazione in concessione in ambienti residenziali tipici.

이 기기는 가정용으로 전자파 적합등록을 한 기기로서

주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

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Japanese statement of compliance for products less than or equal to 20 A per phase

高調波ガイドライン適合品

IBM